

**Alfred University Elemental Neutralization Log**

If an aqueous chemical qualifies for neutralization, it must be neutralized to within a pH range of 5.0 to 9.0, then discharged to the sanitary sewer.

Note: This log must be submitted to Central Accumulation at the end of every month when elemental neutralization occurs.

Check box: NYSCC  AU  Contact Person (Print Clearly): \_\_\_\_\_ Phone No. \_\_\_\_\_

Division: \_\_\_\_\_; Building Name: \_\_\_\_\_

**Note:** Only characteristic corrosives can be neutralized. If the pH of the aqueous solution is less than 2 or greater than 12.5, these aqueous solutions are characteristic corrosive hazardous wastes under federal and state environmental laws. These laws allow neutralization without a permit. **If the aqueous waste carries any additional listed, process or characteristic hazardous waste codes other than “characteristic corrosive”, it cannot be neutralized and disposed of to the sanitary sewer. Instead, it must be managed as a hazardous waste.**

Name of chemical being neutralized and name of neutralizing chemical used	Room	Initial pH	Final pH	Discharge Volume Generated (L / gal)	Date of Discharge	Individual performing neutralization and discharge

## Elementary Neutralization Procedure

Common laboratory corrosives are collected from the Satellite Accumulation Areas.

A determination is made on a case-by-case basis if the chemical is a candidate for elementary neutralization. Corrosives that, when properly and safely neutralized to a pH between 5 and 9, and are in accordance with federal, state and local discharge regulations, will be considered. Wastes that carry additional listed, process or characteristic codes, will not be neutralized. An example of this would be a corrosive solution containing a listed toxic or characteristic of heavy metals.

Common Acids	Common Caustics
Nitric Acid	Sodium Bicarbonate
Sulfuric Acid	Sodium Hydroxide
Hydrochloric Acid	Ammonium Hydroxide

### Tools

5 Gallon Elementary Neutralization Unit (or UN approved compatible container) with discharge spigot

Stirring wand

pH paper

Safety glasses, gloves and lab coat

### Acid Neutralization

Highly concentrated acids should first be diluted by adding the acid to cold water to a concentration below 10%. While stirring, add the dilute acid to the Neutralization Unit containing cold water and base. When a pH between 5 and 9 has been achieved, the solution can be flushed down the drain followed by copious amounts of water.

### Caustic Neutralization

Highly concentrated bases should first be diluted by adding the base to cold water to a concentration below 10%. While stirring, add the dilute base to the Neutralization Unit containing cold water and acid. When a pH between 5 and 9 has been achieved, the solution can be flushed down the drain followed by copious amounts of water.